

## **REMARKS**

A Request for Continued Examination is being filed concurrently herewith.

A Declaration under 37 CFR 1.132, Traversing Rejections Under 35 USC 102(e) as Anticipated by Nemoto (US 6,422,546), is being filed concurrently herewith.

Upon entry of the present amendment, claims 1-11 are pending in the application, of which claims 1, 6, and 11 are independent. Claim 1 is amended herein.

The above-identified Office Action has been reviewed, the references carefully considered, and the Examiner's comments carefully weighed. In view thereof, the present Amendment is submitted. It is contended that by the present amendment, all bases of rejection set forth in the Office Action have been traversed and overcome. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

### **Claim rejections – 35 USC 102**

In item 2 of the Office Action, the Examiner rejected Claim 1 under 35 USC 102(b) as anticipated by Muramatsu et al. Muramatsu et al. disclose an active vibration damping system including a controller that applies a control pulse signal to a drive means within the system.

Regarding claim 1, the Examiner states that Muramatsu et al disclose a method for controlling the drive of an actuator of an active vibration isolation system including an elastic body 16, a vibrating body 18, a liquid chamber 54 having a wall which is at least in part formed from the elastic body, a moveable member 48, and an actuator 74, and describes the method step of controlling the current supplied to the actuator such that the current passing through the actuator becomes zero at least when the movable member has moved back (col. 16, line 65 – col.

17, line 17).

The applicant notes that this rejection is essentially the same as the rejection of the previous Office Action. The Examiner provides remarks as to why she feels that the applicant's arguments against the rejection were unpersuasive. The Examiner states that the features upon which the applicant relies to indicate that Muramatsu fails to show certain claimed features are not recited in the rejected claim(s). Specifically, the limitation in which the operation of the actuation system is "unrelated to the position of the moveable member within the damping system" is not claimed, and that the claimed language "controlling the current supplied to the actuator such that the current passing through the actuator becomes zero at least when the moveable member has moved back" is anticipated by Muramatsu. It is the Examiner's position that the current would be zero when moveable member 48 is moved back to its original position and the actuator is no longer active, for example when the device is non-operational.

Upon review of this reference, the applicant finds that Muramatsu et al. disclose a controller to control an oscillating force for oscillating the oscillating plate 48. The controller 80 generates a coil drive pulse signal E based on data it receives and reference data it has stored. For example, controller 80 receives multiple inputs including a reference signal R from an ignition pulse sensor, and then generates a pulse signal P having the same frequency of R and a duty ratio of 0.5. Controller 80 also determines the phase change for P dependent on the running condition of the vehicle, as known from input running condition signal S (col 16, line 21 – col 17 line 63). Thus, the controller of Muramatsu et al provides a coil drive pulse signal E that is not dependent upon the position of the movable member, as recited in the applicant's claim 1, but rather is unrelated to movable member position and calculated based on several various inputs and preset conditions.

Further, Muramatsu et al. do not describe control of the current to the actuator, but instead states control in terms of a pulse signal to the coil drive.

The applicant considers the controller disclosed by Muramatsu et al. to conform to the prior art control means (as described with respect to the applicant's FIG. 6) wherein a rectangular voltage pulse is cyclically applied to the actuator of the vibration isolation support system such that the current passes through the actuator changes in a sawtooth waveform with a time lag so that the current does not become zero within the cycle or period of applied voltage, when the voltage has been turned off. Because the current does not ever become zero, heat can be generated in the coil with negative effects on the device.

Because it is the Examiner's position that the current would be zero when moveable member 48 is moved back to its original position and the actuator is non-operational, the applicant has amended claim 1 herein to recite the method step of controlling the current supplied to the actuator *during operation of the actuator* such that the current passing through the actuator becomes zero at least when the moveable member has moved back.

The applicant respectfully submits that claim 1, as amended herein, avoids rejection as anticipated by Muramatsu et al. since Muramatsu does not disclose control of the current supplied to the actuator as recited in this claim, and does not disclose current passing through the actuator becoming zero during operation of the actuator. Thus claim 1, and claims 2-5 which depend from claim 1, are considered to be in condition for allowance.

In item 3 of the Office Action, the Examiner rejected claims 5-7 under 35 USC 102(e) as anticipated by Nemoto et al. (US 6,422,546). The Examiner notes that the applied reference has a

common inventor and assignee with the instant invention, and that the rejection might be overcome either by a showing under 37 CFR 1.132 or 37 CFR 1.131.

The applicant respectfully disagrees with this rejection. Upon review of the Nemoto '546 reference, the applicant notes that it is directed to a vibration isolating support device, and does not disclose *a method* for controlling the drive of actuator of the device. Nemoto '546 does disclose that the electronic control unit controls the excitation of the coil based on signals from the engine speed sensor, the load sensor, the acceleration sensor, and the lift amount sensor (col 10, lines 47-50). However, the method step of "controlling the current supplied to the actuator such that the amount of current supplied is dependent upon position of the movable member", as claimed by the applicant in claim 6, is not inherent to the disclosure of the actuator device, as provided in the '546 patent since Nemoto '546 does not disclose *control of the current* supplied to the actuator. For this reason, the applicant considers claim 6, and claims 7-10 which depend from claim 6, to avoid rejection as anticipated by Nemoto '546, and to be in condition for allowance.

In further regards to the rejection of claims 5-7 under 35 USC 102(e) as anticipated by Nemoto et al., the applicant is including a signed declaration under 37 CFR 1.132 in which the applicant states that he is a co-inventor of the Nemoto '546 patent, and that any invention disclosed but not claimed was derived by the applicant, and thus was not an invention "by another". This declaration, submitted at the suggestion of the Examiner, obviates the rejection of these claims.

With respect to claim 5, the applicant respectfully disagrees with this rejection since the '546 reference is not considered by the Examiner to anticipate claim 1. Because claim 5 depends from claim 1, and because claim 1 avoids rejection under '546, then so also does claim 5. In

addition, the applicant submits that claim 5 recites a method step of “controlling the waveform of the lift of the actuator”, and such waveforms are not described in the ‘546 reference.

As regards claim 7, the applicant respectfully disagrees the ‘546 reference discloses the method steps recited in this claim. For example, Nemoto ‘546 does not disclose controlling the current supplied to the actuator so that the current passing through the actuator becomes zero at least when the movable member moves back, as recited in claim 7. Nemoto ‘546 discloses neither the control of current, nor the timing of the current so as to provide a zero current for a specific device configuration. Thus, the applicant considers claim 7 to be in condition for allowance.

#### **Allowable Subject Matter**

The applicant gratefully acknowledges the Examiner’s allowance of claim 11, and indication that claims 2-4 and 8-10 include allowable subject matter.

#### **Conclusion**

For all of the above mentioned reasons, applicant requests reconsideration and withdrawal of the rejection of record, and allowance of the pending claims.

Applicant respectfully submits that all of the above amendments are fully supported by the original application. Applicant also respectfully submits that the above amendments do not introduce any new matter into the application.

Applicant respectfully submits that the above amendments are fully supported by the original disclosure, including the drawings and claims, no new matter is introduced by the above amendments. The application is now believed to be in condition for allowance, and a notice to

this effect is earnestly solicited.

If the Examiner is not fully convinced of the allowability all of the claims now in the application, applicant respectfully requests that the Examiner telephonically contact applicant's undersigned representative to expeditiously resolve prosecution of the application.

Favorable reconsideration is respectfully requested.

Respectfully submitted,

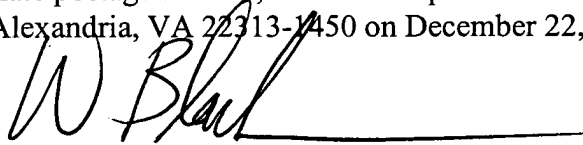


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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail, with appropriate postage thereon, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on December 22, 2004.



Dated: December 22, 2004

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